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CP-201900191
TXX-19039

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Ref 10 CFR 50.73

4/25/2019

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NO. 50-446
MANUAL REACTOR TRIP DUE TO FEEDWATER ISOLATION VALVE CLOSURE
LICENSEE EVENT REPORT 446/19-001-00

Dear Sir or Madam:

Pursuant to 10CFR50.73, Vistra Operations Company LLC (Vistra OpCo), hereby submits the enclosed Licensee Event Report 446/19-001-00, "Manual Reactor Trip Due To Feedwater Isolation Valve Closure" for Comanche Peak Nuclear Power Plant (CPNPP) Unit 2.

This communication contains no new licensing basis commitments regarding CPNPP Unit 2.

IE22
NRR

If you have any questions regarding this submittal, please contact Gary L. Merka at (254) 897-6613.

Sincerely,

Thomas P. McCool

Enclosure COMANCHE PEAK NUCLEAR POWER PLANT
MANUAL REACTOR TRIP DUE TO FEEDWATER ISOLATION VALVE CLOSURE
LICENSEE EVENT REPORT 446/19-001-00

c – Scott Morris, Region IV
Natreon Jordan, NRR
Resident Inspectors, Comanche Peak

NRC FORM 366 (04-2017) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 03/31/2020

LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
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4. TITLE

Manual Reactor Trip Due To Feedwater Isolation Valve Closure

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	02	2019	2019	001	00	04	25	2019		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☑ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
100	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(i)
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 50.73(a)(2)(i)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Gary Merka	6613

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☑ NO				

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

At 0317 on March 2, 2019, Comanche Peak Nuclear Power Plant (CPNPP) Unit 2 was manually tripped due to an unexpected closure of Feedwater Isolation Valve 2-04 and loss of Steam Generator 2-04 level control. All systems functioned as designed and the Unit 2 Auxiliary Feedwater Pumps started as designed due to low level in Steam Generator 2-04. There was no impact on Unit 1.

The cause of this event was the inadvertent actuation of a Feedwater circuit relay which caused Feedwater Isolation Valve 2-04 to close. Corrective actions include a site wide stand down on the event and suspension of activities involving relay checks. All times in this report are approximate and Central Standard Time unless noted otherwise.

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Comanche Peak Nuclear Power Plant	05000- 446	19	- 001	- 00

NARRATIVE

I. DESCRIPTION OF THE REPORTABLE EVENT

A. REPORTABLE EVENT CLASSIFICATION

This event is reportable under 10CFR50.73(a)(2)(iv)(A), "Any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B) of this section." The systems that actuated were the Unit 2 Reactor Protection System and the Unit 2 Auxiliary Feedwater System.

B. PLANT CONDITION PRIOR TO EVENT

At 0317 on March 2, 2019, Comanche Peak Nuclear Power Plant (CPNPP) Unit 2 was in MODE 1 operating at 100% power.

C. STATUS OF STRUCTURES, SYSTEMS, OR COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

There were no structures, systems, or components that were inoperable prior to the event which contributed to the event.

D. NARRATIVE SUMMARY OF THE EVENT, INCLUDING DATES AND APPROXIMATE TIMES

On March 2, 2019, a Reactor Operator (Utility, Licensed) was performing a weekly activity from the Shift Manager Daily Activities Log to check for buzzing relays and blown fuses in the Unit 2 Main Control Room back panels. During this activity, the Reactor Operator heard a buzzing relay and attempted to narrow down which relay was buzzing by lightly touching the relays to see if the buzzing would stop. When he touched the armature of the feedwater circuit relay, the force was enough to actuate it causing Feedwater Isolation Valve 2-04 [EIIS:(SJ)(ISV)] to close. At 0317, CPNPP Unit 2 was manually tripped due to an unexpected closure of Feedwater Isolation Valve 2-04 and loss of Steam Generator 2-04 level control [EIIS:(JB)(LC)]. All systems functioned as designed and the Unit 2 Auxiliary Feedwater Pumps started as designed due to low level in Steam Generator 2-04. There was no impact on Unit 1.

E. THE METHOD OF DISCOVERY OF EACH COMPONENT OR SYSTEM FAILURE, OR PROCEDURAL PERSONNEL ERROR

Operators (Utility, Licensed) in the Unit 2 Control Room received a SG 2-04 Level Deviation Alarm on the Main Control Board.

II. COMPONENT OR SYSTEM FAILURES

A. CAUSE OF EACH COMPONENT OR SYSTEM FAILURE

Not applicable - There were no component or system failures during this event.

B. FALURE MODE, MECHANISM, AND EFFECTS OF EACH FAILED COMPONENT

Not applicable - No CPNPP component or system failures were identified during this event.

C. SYSTEMS OR SECONDARY FUNCTIONS THAT WERE AFFECTED BY FAILURE OF COMPONENTS WITH MULTIPLE FUNCTIONS

Not applicable - No CPNPP component or system failures were identified during this event.

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
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NARRATIVE

D. FAILED COMPONENT INFORMATION
Not applicable - No CPNPP component or system failures were identified during this event.

III. ANALYSIS OF THE EVENT

A. SAFETY SYSTEM RESPONSES THAT OCCURRED
The Unit 2 Reactor Protection System and the Unit 2 Auxiliary Feedwater systems responded as designed.

B. DURATION OF SAFETY SYSTEM TRAIN INOPERABILITY
This event did not involve the inoperability of any safety systems.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT
A loss of normal feedwater is an ANS Condition II event (Faults of Moderate Frequency). This event is bounded by FSAR Section 15.2, "Decrease In Heat Removal By The Secondary System." When Feedwater Isolation Valve 2-04 closed, the reactor was manually tripped and the Auxiliary Feedwater System automatically started to provide feedwater to the steam generators. The reactor trip on steam generator low level provides the necessary protection against a loss of normal feedwater.

No automatic safety functions were exercised other than the expected automatic start of the Auxiliary Feedwater System and all plant safety systems responded as designed during the resultant transient. This event had no impact on nuclear safety, reactor safety, radiological safety, environmental safety, or the safety of the public. This event has been evaluated to not meet the definition of a safety system functional failure per 10CFR50.73(a)(2)(v).

IV. CAUSE OF THE EVENT
The cause of this event was the inadvertent bumping (touching) of a relay resulting in a close signal being sent to Feedwater Isolation Valve 2-04. The guidance provided for performing the weekly check for "buzzing" relays did not give direction to touch any components in the panel, and this was a human performance error by the Reactor Operator.

V. CORRECTIVE ACTIONS
The Reactor Operator Involved in this event was coached, and a site stand down was conducted on the event. Activities involving relay checks were temporarily suspended,and the weekly check for "buzzing" relays was removed from the Shift Manager Daily Activities Log. Per the CPNPP Corrective Action Program, an evaluation of Operations, Control Room, and Field activities that potentially could challenge nuclear risk will be performed and all CPNPP personnel are evaluating departmental activities to determine if similar risk challenges exist that require further evaluation.

VI. PREVIOUS SIMILAR EVENTS
There have been other manual reactor trips in the last three years. However, the causes of those events are believed to be sufficiently different from this event such that previous corrective actions could not have prevented this event.